

REMARKS/ARGUMENTS

Favorable consideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-12 are presently pending in this application, Claims 1, 2 and 4-6 having been amended and Claims 11 and 12 having been added by the present Amendment.

In the outstanding Office Action, Claims 1-10 were rejected under 35 U.S.C. §103(a) as being unpatentable over Di-Crescenzo et al. "Universal Service-Providers for Database Private Information Retrieval" which was cited by the Examiner, not submitted by the Applicant.

Submitted herewith is a separate LETTER SUBMITTING DRAWING SHEET(S), submitting for approval of correction to Fig. 6. Specifically, in step S32, the phrase "SAME SCHEMA ID EXISTS IN THE CHANGED SCHEMA?" has been changed to "SAME ATTRIBUTE ID EXISTS IN THE CHANGED SCHEMA?". No new matter has been introduced.

The amended Claims 1, 2 and 4-6 and added Claims 11 and 12 are fully supported by the specification, drawings and claims as originally filed. Applicant therefore submits that no new matter has been introduced.

Claims 1, 2 and 4-6 have been amended to remove step plus function recitation, to thereby preclude the application of 35 U.S.C. §112, sixth paragraph. Thus, the claim amendments directed to Claims 1, 2 and 4-6 are not believed to narrow the scopes of their original claims.

Claims 11 and 12 have been added to vary the scope of protection recited in the claims.

Briefly recapitulating, the present invention recited in Claim 1 is directed to a document management method which uses a plurality of document schemas to manage a

document retrieval request. The document schemas define a structure of document contents. Each document schema includes a plurality of attributes. In this method, a schema identifier is assigned to each of the plurality of document schemas by generating a global unique identifier value every time a schema name of a new document schema is input. An attribute identifier is assigned to each of the plurality of attributes of one of the plurality of document schemas by generating another global unique identifier value. By assigning an attribute identifier to each of the plurality of attributes, it is made easier and faster to find out which attribute has been changed when the document schema is changed.¹

Di-Crescenzo et al. disclose private information retrieval schemes. Nevertheless, Di-Crescenzo et al. do not teach “assigning an attribute identifier to each of the plurality of attributes of one of the plurality of document schemas by generating another global unique identifier value” as recited in Claim 1. On the other hand, Di-Crescenzo et al. disclose a retrieval stage where the database shifts the original data string to the virtual data string so as to reduce the retrieval of the record in the original data string to the retrieval of the record in the virtual data string.² This shift merely constructs the virtual data string in a position different from the position of the original data string, and thus the original data string remains the same and is not assigned an identifier. Furthermore, performing such shifts increases the data size, thereby making the answer complexity unrealistically large in a system including a large number of servers.³ As such, the Di-Crescenzo et al. method makes the retrieval of the data less easy and fast.

Therefore, the method recited in Claim 1 is believed to be distinguishable from Di-Crescenzo et al. Hence, Claim 1 is believed to be allowable.

¹ See Specification, page 12, lines 2-4.

² See Di-Crescenzo et al., page 10, lines 4-10.

³ See id., page 10, lines 36-39.

Likewise, Claims 7, 11 and 12 include subject matter substantially similar to what is recited in Claim 1 to the extent discussed above. Thus, Claims 7, 11 and 12 are also believed to be allowable.

Furthermore, since Claims 2-6 and 8-10 ultimately depend from either Claim 1 or 7, substantially the same arguments set forth above also apply to these dependent claims.

Hence, Claims 2-6 and 8-10 are believed to be allowable as well.

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In view of the amendments and discussions presented above, Applicant respectfully submits that the present application is in condition for allowance, and an early action favorable to that effect is earnestly solicited.

Respectfully submitted,

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